Maytenus rupestris (Celastraceae), a New Species from Minas Gerais, Southeastern Brazil

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ABSTRACT. Maytenus rupestris Pirani & Carvalho-Okano, a new species of Celastraceae endemic to the Serra do Cipó, Minas Gerais, Brazil, is described and illustrated. Included in section Maytenus, it is distinct from its congeners (especially from M. boaria Molina) by its ascending, very narrow leaves with revolute margins that are entire or sparsely denticulate on the distal half, and by its few-flowered cymes.

Maytenus Molina emend. Molina is one of the largest genera in the Celastraceae, with around 200 pantropical species, mostly South American (Bornstein, 1989). According to Carvalho-Okano (1992), 77 species occur in Brazil, from Amazonia to the south of the country. In the state of Minas Gerais, 14 species occur, 10 belonging to section Maytenus (M. evonymoidis Reissek, M. floribunda Reissek, M. glazioviana Loesener, M. gonoclada Martius, M. imbricata Reissek, M. ligustrina Reissek, M. radl-koferiana Loesener, M. robusta Reissek, M. salicifolia Reissek, and M. urbaniana Loesener), and 4 to section Oxyphylla Loesener (M. acanthophylla Reissek, M. aquifolia Martius, M. comocladiaeformis Reissek, and M. rigida Martius).

While performing floristic surveys along the mountains of the Espinhaço Range, in Minas Gerais and Bahia, a new species was found in river margins in the Serra do Cipó and is presented here. (Note: the acronym CFSC = Coleção Flora da Serra do Cipó.)

Maytenus rupestris Pirani & Carvalho-Okano, sp. nov. TYPE: Brazil. Minas Gerais: Município de Santana do Riacho, Serra do Cipó, Ribeirão Indequicé, Cachoeira do Cornélio, perto da Estrada da Usina, 5 Oct. 1981 (fl), A. Furlan, I. Cordeiro, M. L. Kawasaki & J. R. Pirani CFSC 7506 (holotype, SPF; isotypes, K, NY, RB, SP, VIC). Figure 1.

Ab omnibus congeneribus foliis anguste oblongo-ellipticis margine revoluto integerrimo vel ultra medium remote denticulato, cymis brevibus paucifloribus differt.

Shrub or small tree, 1-3 m tall, glabrous. Twigs grayish, 4-angled. Leaves alternate, ascending, narrowly oblong-elliptic, apex obtuse or sometimes acute or truncate, often mucronulate, base attenuate and decurrent to the short petiole, margin entire or rarely with 2 very small teeth on the distal part, revolute, in vivo dark green and lustrous on the adaxial face, light green and dull on the abaxial face, in sicco grayish to glaucous on both faces or slightly ochraceous on the abaxial face, 30-80 mm long, 4-8 mm wide; primary vein prominent on both faces at least toward base, venation brochidodromous, secondary veins straight to slightly curved, evident on the abaxial face, obscure on the adaxial face. Stipules 7-10 mm long, triangular, blackish. Inflorescence a reduced cyme with 2-3(-4) flowers, axillary, pedunculate, ramified, 6-14 mm long; bracts triangular, 5-7 mm long, apex acute to acuminate, margin irregularly serrulate. Flowers 5merous, short-pedicellate, cream to greenish colored; sepals ovate, ca. 1 mm long; petals free, oblong, apex rounded, ca. 3 mm long, margin thin and slightly undulate, reflexed at anthesis; stamens 5, alternate with the petals, ca. 2 mm long, filaments flattened, attenuate to the apex, broadened toward base, inserted on the base of the intrastaminal disc, reflexed at anthesis, anthers ovoid, yellow; intrastaminal disc fleshy, 5-lobed, ca. 2 mm diam., margin undulate; gynoecium of 2 fused carpels, the base of the ovary slightly fused to the disc, stigma 2-lobed on a short style. Fruit a loculicidal capsule, ellipsoid to obovoid, apiculate, ca. 10 mm long, ca. 7 mm diam., yellow to orange when ripe, opening in 2 reflexed valves consisting of 2 halves of adjoining carpels; seed 1, erect, completely surrounded by a white, soft aril.

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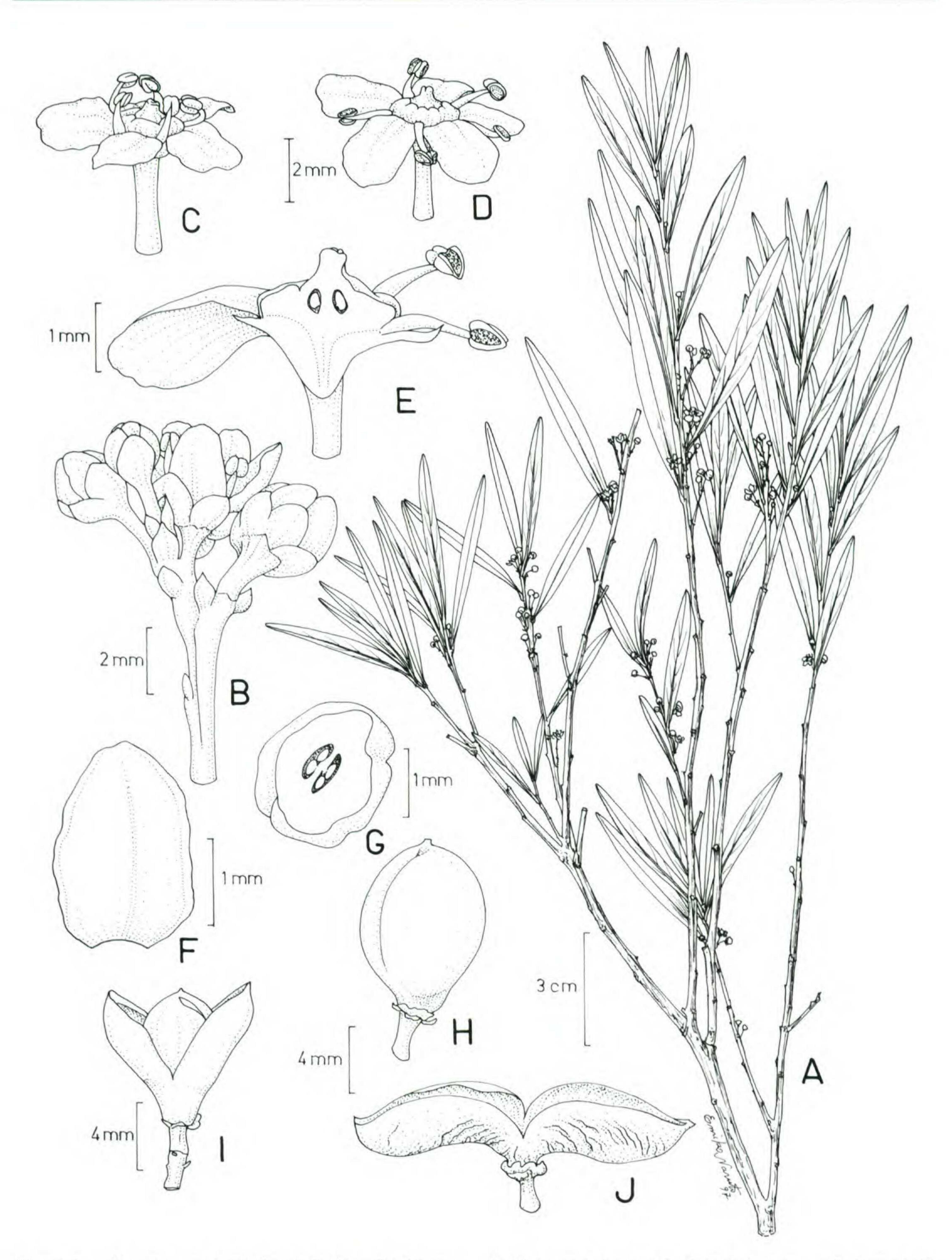


Figure 1. Maytenus rupestris Pirani & Carvalho-Okano. —A. Flowering shoot; note 4-angled twigs. —B. Cyme with 4 flowers. —C. Flower at anthesis, before dehiscence of the anthers. —D. Flower with the stamens reflexed and anthers opened. —E. Longitudinal section of a flower. —F. Petal, adaxial view. —G. Cross section of an ovary. —H. Fruit before dehiscence. —I. Capsule opened showing seed surrounded by an aril. —J. Capsule after dropping of the seed, with reflexed valves. A, C–G, drawn from Furlan et al. CFSC 7506; B, drawn from Joly CFSC 3691; H–J, drawn from Pirani CFSC 11449.

Maytenus rupestris is distinct from the other species of the genus by its ascending, very narrow leaves, with revolute margins, commonly entire but sometimes with small teeth on the distal part, and also by its few-flowered (2–3, seldom 4), reduced cymes. Besides this combination of characters, M. rupestris is easily recognized in the field by the color of its leaves, which are dark green and shiny above and light green and dull below, turning grayish to glaucous on both faces when dried, probably because of the presence of an epicuticular wax layer.

Maytenus rupestris is included in section Maytenus, along with the bulk of the taxa in the genus, because of its entire (vs. spiny) leaf margins. Maytenus boaria Molina, from southern Brazil, Argentina, Chile, and Peru, also has very narrow leaves, but it seems not to be closely related to the new species, since its leaves have glandular-serrate, not revolute margins, its stipules are linear, fimbriate, and its inflorescences are multi-flowered fascicles.

Maytenus rupestris is known so far only from the Serra do Cipó, in the southern part of the Espinhaço mountain range, in the state of Minas Gerais. It is a shrub or much-branched tree up to 3 m that grows as a heliophyte in open vegetation among sandstone rocks ("campo rupestre"), by the river and sides of gullies of that region. It occurs sometimes close to riparian forests, but not in the shadow of the tree canopies. Although it is probably endemic to the Serra do Cipó, since it has not been found elsewhere so far, locally it is relatively com-

mon. The flora of the "serras" of the Espinhaço Range shows a high number of endemic species, and even endemic genera, in several families, but mostly referring to taxa from open formations (Giulietti et al., 1997). However, in many instances, even essentially forest genera (like the case of Maytenus) happen to show one or a couple of endemic "campo rupestre" members in the Espinhaço.

Paratypes. BRAZIL. Minas Gerais: Santana do Riacho, Serra do Cipó, Rodovia Belo Horizonte-Conceição do Mato Dentro, km 128, 4 Nov. 1972 (fl), A. B. Joly CFSC 3691 (SP, SPF, VIC); km 129, 20 Oct. 1973 (fl), A. B. Joly et al. CFSC 4607 (FCAB, SP); km 117, 4 Sep. 1973 (fl), J. Semir et al. CFSC 4381 (SP); km 117, 26 July 1973 (fr), N. L. Menezes CFSC 4293 (SP); Estrada da Usina Dr. Pacífico Mascarenhas, 14 Nov. 1983 (fl, fr), J. R. Pirani & L. Rossi CFSC 9215 (SPF, VIC); 2 km acima da entrada para a Estrada da Usina, 6 Sep. 1987 (fl), R. Simão CFSC 10427 (SPF); km 111, Vale do Córrego Vitalino, 20 May 1989 (fr), J. R. Pirani CFSC 11449 (MBM, SP, SPF, VIC).

Literature Cited

Bornstein, A. J. 1989. Celastraceae. Flora of the Lesser Antilles Leeward and Windward Islands, 5: 113–125.

Carvalho-Okano, R. M. de. 1992. Estudos taxonômicos do gênero *Maytenus* Mol. emend. Mol. (Celastraceae) do Brasil Extra-Amazônico. Unpublished Doctoral Thesis. Instituto de Biologia, Universidade de Campinas, Campinas.

Giulietti, A. M., J. R. Pirani & R. M. Harley. 1997. Espinhaço Range Region, eastern Brazil. Pp. 397–404 in S. D. Davis, V. H. Heywood, O. Herrera-MacBryde, J. Villa-Lobos & A. C. Hamilton (editors), Centres of Plant Diversity. A Guide and Strategy for Their Conservation, Vol. 3. The Americas. IUCN Publications Unity, Cambridge.